

REMARKS

Claims 1–29 are pending. Claims 9–11, 21, and 24 have been withdrawn based on an election of species requirement. Claims 1, 22, and 25 have been amended. Support for the amendment to claims 1 and 22 can be found throughout the specification and in the drawings. Claim 25 has been amended to incorporate claim 27. Claim 27 has been cancelled. Applicant gratefully acknowledges Examiner’s indication of allowable subject matter.

§112

Claims 25 and 26 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being indefinite. The Examiner asserts that the phrase “a ratio of thickness of the backing portion to thickness of the metallic facing element is selected to be effective against a predetermined penetration threat” renders claim 25 indefinite as to what ratios may or may not be inclusive with such terminology. Applicant has amended claim 25 to incorporate claim 27 therein. Applicant respectfully asserts that amended claim 25 is not indefinite. Claim 26 is rejected, but the reasons are not particularly identified. It is presumed that it is rejected for the same reason as is independent claim 25, from which it depends. Applicant notes that claim 26 specifically identifies the applicable ratios. Thus, it is certain which ratios are inclusive in the terminology of this claim.

Therefore, Applicant respectfully requests that the rejection of claims 25 and 26 under 35 U.S.C. § 112, second paragraph, for indefiniteness be withdrawn.

§102

Claims 1–3, 12–15, 22, and 23 stand rejected under 35 U.S.C. § 102(b) as assertedly anticipated by U.S. Pat. No. 5,014,593 to Auyer et al. Auyer et al. ‘593 does not anticipate amended independent claims 1 and 22.

The Office Action asserts that Auyer et al. '593 includes a fiber composite substrate backing identified as element 38. Auyer et al. '593 identifies element 38 as an integument which encloses and encases outer and inner perforated steel plates, as well as the first and second fillers. Col. 4, lines 11–20. Amended independent claims 1 and 22 includes a backing that does not enclose the metallic facing element. Auyer et al. '593 does not teach or suggest such a backing element.

Because Auyer et al. '593 does not have each and every element of claims 1 and 22 of the present application, a rejection of these claims as anticipated by Auyer et al. '593 is improper. Applicants respectfully request withdrawal of this rejection.

Dependent claims depending from independent claims 1 and 22 are believed allowable as dependent on an allowable independent claim as well as being allowable in their own right. Also, because generic claims 1, 18, and 22 are believed allowable, withdrawn claims 9–11 and 21, which depend from claim 1, and 24 are believed allowable, as well.

For example, the cited references do not disclose fiber composite substrates having a ratio of thickness of a backing layer to fiber equivalent diameter of less than about 20.0, or between about 3.5 and about 10.0, as claimed in dependent claims. The cited references also do not disclose that the perforation diameter can be greater than the diameter of the projectile to be defeated or any particular ratio between perforation diameter and projectile diameter, as claimed in the dependent claims of the present application.

Claims 25 and 27 are rejected under 35 U.S.C. §102(b) as being anticipated by King. The Examiner relies upon Fig. 5 of King to show the claimed ratios of thickness of a layer to an equivalent diameter of filaments and thickness of the backing portion to the metallic facing element. However, nowhere is it suggested in King that the drawings are to scale. King itself does not teach or suggest these ratios throughout the specification. The Examiner is relying on hindsight to point out features in Fig. 5 of King that do not exist. Thus, the rejection is improper, and Applicant respectfully requests that the rejection be withdrawn.

Claim 25 is rejected under 35 U.S.C. §102(b) as being anticipated by Harpell et al. Again, the Examiner relies upon a Figure to show the claimed ratio. As discussed above with respect to

King, Harpell does not suggest that the drawings are to scale, and Harpell does not teach or suggest the ratio in the specification. Thus, the rejection is improper, and Applicant respectfully requests that the rejection be withdrawn.

§103

Claims 4-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Auyer et al. in view of Tarsi et al. Tarsi et al. is relied on to teach apertures of a particular size. According to the MPEP §706.02(j), to meet a threshold showing of prima facie obviousness, the Examiner must make three showings. The showings are: that there is some suggestion or motivation to modify the references; that there is a reasonable expectation of success; and that the prior art references teach or suggest all of the claimed limitations. The Examiner has not met this burden.

Claims 4-8 depend from independent claim 1. As discussed above, Auyer et al. does not teach or suggest every feature of claim 1. For example, Auyer et al. does not teach or suggest a composite backing that does not enclose a metallic facing element. Tarsi et al. does not teach or suggest such a backing. The Examiner has failed to show that the references teach or suggest all of the claim limitations. Therefore, claims 4-8 are patentable over the cited and applied prior art. Applicants respectfully request withdrawal of this rejection.

Claims 16, 17, 19-20, 28, and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Auyer et al. in view of Harpell et al. The Examiner suggests that the filler layer 22 or 24 of Auyer be replaced with at least two fiber layers 14 of Harpell. However, the Examiner has failed to show that there is a motivation to combine the references. Auyer et al. specifically state that layers 22 and 24 are filler layers. (Col. 3, lines 50-58). Auyer suggests that these layers may be any suitable light weight material such as foam, plastic, or balsa wood. (Id.) It is clear that these layers do not provide any ballistic protection or strengthen the assembly. Auyer et al. does not suggest that these layers serve any sort of backing function. Indeed, layer 28 is specifically identified as a backing plate for stopping any particles that might pass through the perforated steel plates 14 and 18. Thus, one having skill in the art would have no reason to replace the filler layers 22 and 24 with a fiber layer 14 of Harpell. Fiber layer 14 of Harpell

would not serve an adequate function as a filler. Thus, the Examiner has failed to show that the references teach or suggest all of the claim limitations. Examiner has failed to make a *prima facie* case of obviousness, and Applicant respectfully requests that the rejection of claims 16, 17, 19-20, 28, and 29.

The Examiner rejects claim 26 under 35 U.S.C. §103(a) as being unpatentable over Harpell in view of Park. However, the Examiner has failed to make a *prima facie* case of obviousness. As discussed above, nothing in Harpell teaches or suggests particular ratios. Park merely teaches adding additional layers of backing material to provide a desired amount of ballistic protection. However, nothing in Park teaches or suggests the particular ratio of claim 26. There is absolutely no reason to believe that one skilled in the art would combine Harpell and Park or that one skilled in the art would practice Park in order to achieve the specific ratio. The Examiner is applying impermissible hindsight to arrive at this conclusion. Thus, Applicant respectfully requests that the rejection of claim 26 be withdrawn.

CONCLUSION

Applicant respectfully submits that, in view of the above amendments and remarks, the application is now in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

While Applicant believes that any fees that accompany this paper have been calculated correctly, the undersigned hereby expressly authorizes the Office to charge any required fees, or credit any overpayments, to Applicant's Deposit Account No. 03-0172.

Respectfully submitted,

CALFEE, HALTER & GRISWOLD LLP

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By Joan N. Drew

Joan N. Drew
Registration No. 52,364
1100 Fifth Third Center
21 East State Street
Columbus, OH 43215-4243
(614)621-7763
Facsimile: (614) 621-0010
E-mail: joan.drew@calfee.com